Improving Edge Placement Accuracy of Signals Generated by Test Equipment

Abstract

A software controlled mechanism causing a test equipment to place the edges of test signals accurately. The mechanism determines expected time of occurrence of an edge of a signal in relation to a tester cycle time. The mechanism sends commands to the test equipment to receive back the signal (of interest) in multiple cycles and provides the time points corresponding to the edge in the multiple cycles. The software controlled mechanism computes an error based on the time points and the expected time, and adjusts the timing of the edges of the signal according to the error. Such computation and adjustment are performed until the error is within an acceptable range.